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ABSTRACT

A study was conducted to investigate ways in which reading comprehension could be instructionally influenced and whether that influence differentially affected young and elderly adult learners. The study attempted, too, to determine whether advance organizers--instructional aids designed to precede a main passage and to provide an organizational framework for meaningful prose--would aid older adults of limited verbal ability as much as younger adults. A second question examined whether older adults who are exposed to an advance organizer will improve in their recall of the gist or the detail of text material. Twenty-eight young adults (aged 18-32) and 42 elderly adults (aged 55-82) were asked to read a 1,600 word main passage that dealt with developing a wildflower garden. A 400-word advance organizer was elaborated as a conceptual framework for introducing the main passage. Pilot research indicated that the advance organizer, although discussing in general terms the main themes contained in the longer passage, did not contain explicit information included there. Multiple choice questions were developed to test comprehension and retention of the information in the main passage. Treatment groups consisted of those who read the advance organizer prior to the main passage, and those who read the main passage only. Results indicated that subjects of limited verbal ability benefited most from the advance organizer; no one age group, however, benefited more than the other. Also, those who read the advance organizer recalled more of the detailed information in the text, but did not do as well with the more general information. (NKA)

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The Use of Advance Organizers With Older Adults of Limited Verbal Ability

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Abstract

This study examined whether advance organizers benefit adults of limited verbal ability, and whether older adults who are exposed to an advance organizer improve in their recall of the "gist" on the detail of text material. A sample of young (aged 18-32) and elderly (aged 55-82) adults read a 1,600 passage on gardening. Treatment groups consisted of those who read a 400 word advance organizer prior to the main passage, and those who read a main passage only. Results indicated that subjects of limited verbal ability benefited most from the advance organizer, but not one age group more than the other. Secondly, the advance organizer appeared to benefit recollection of the most detailed information in the text.

The Use of Advance Organizers With Older Adults of Limited Verbal Ability

As the proportion of individuals over the age of 65 increases in our society, so has our concept of the functional ability of this age group. The once popular belief that learning ability declines throughout adulthood is being replaced with the concept that older adults are both interested in and capable of continued learning.

Much of the existing literature has focused on disproving cognitive decline in the elderly. In recent years Agruso (1978), has argued that educational gerontologists must now go one step further in their research, and use our knowledge to develop effective instructional aids and procedures designed for use with the elderly. Similarly, Knowles (1970) has distinguished between pedagogy, the art and science of teaching children and andragogy, the art and science of teaching older learners.

The current study investigated ways in which reading comprehension could be instructionally influenced and whether that influence differentially affected young and elderly adult learners. Until recent years educators interested in verbal learning have focused their efforts on paired-associate or serial learning tasks. While early studies (e.g., Canestrari, 1963) indicated that older adults performed much more poorly on these tasks than younger adults, more recent investigations have attempted to reduce these differences.

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One of the more promising lines of investigation involves the use of mediators. There is now considerable evidence that older adults do not spontaneously use mediators as extensively or effectively as do younger adults. When instructed to use mediational techniques, however, the older adults improve much more than younger ones, although the younger subjects' overall performance remains superior (Hulicka and Grossman, 1967). Botwinick (1984) argues that mediators provide an organizational strategy for older adults that is frequently employed automatically by younger adults.

Advance organizers were used as the instructional aid of interest in the current study. Advance organizers resemble mediators in some respects, but are designed to provide an organizational framework for meaningful prose. According to Ausubel, Novak and Hanesian (1978) an advance organizer which precedes a main passage, provides a highly inclusive content to which a learner can anchor a main passage and make it more meaningful.

To date very little work has been done investigating the use of advance organizers with older adults. Thompson, Holzman and Doll (1985) found that advance organizers can be effective with older adults of relatively high verbal ability. But most of the available literature on children (e.g., Ausubel and Fitzgerald, 1962) found that advance organizers were particularly effective with subjects of limited verbal ability. Holzman, Allen and Layne (1982) reinforced the notion that advance organizers especially assist less able individuals by applying this aid to

elementary school children, most of whom were reading two grades below normal. Of equal importance, these researchers found that the advance organizers helped children comprehend both general information and more detailed information contained in the text, but were particularly helpful with more detailed information. The current study examined whether advance organizers would aid older adults of limited verbal ability when compared with younger adults. A second question examined whether older adults who are exposed to an advance organizer will improve in their recall of the "gist" or the detail of text material.

Method

Subjects

A sample of young adults was comprised of 28 paid volunteers, aged 18-32, taking a college course on developmental psychology. A sample of healthy elderly adults was comprised of 42 paid volunteers, aged 55-82, recruited from senior citizen centers in metropolitan Atlanta. Mean educational level for the young adults was 14.64 years and for the older adults 11.24 years.

Materials

A 1,600 word main passage (MP) dealt with developing a wildflower garden. Pilot research indicated that the passage on gardening was of interest to the older subjects but because of the subject matter on wildflower gardening, did not contain information that is familiar to most individuals. An advance organizer (AO) of approximately 400 words was developed as a

conceptional framework for introducing the MP. It discussed in general terms the main themes contained in the MP. Pilot research indicated that the AO, however, did not contain explicit information included in the MP. A set of twenty multiple choice questions was developed to test comprehension and retention of the information in the MP.

Procedure

All subjects were administered the first 50 items from the Quick Word Test (Borgatta & Corseni, 1964) as an assessment of general verbal ability. For each age group the experimental treatment (AO-MP) involved first reading the AO and then the MP. A control condition provided a baseline for identifying benefits derived from the AO. In this condition (MPO), subjects were given equivalent time to the AO-MP condition to read the main passage only. Immediately after the assigned passages were read, all subjects answered a set of twenty recognition (multiple choice) questions on the content of the MP. Pilot research had been previously conducted to analyze the semantic structure of the 1,600 word MP using a system described by Johnson (1970) which yields four levels of structure, from "gist" to the greatest level of detail. There were five questions for each level of structure. Presentation order of the twenty recognition items was random.

Sobjects scoring at the top 40 percent and bottom 40 percent of the distribution on the Quick Word Test comprised the high verbal ability and low verbal ability subjects respectively. This yeilded a total sample of 70 young and older subjects.

Results

A 2 (age) x 2 (verbal ability) x 2 (treatment) analysis of variance was performed on each of the four levels of semantic structure of the text, with the level of formal education score as the covariate. Significant main effects were found for verbal ability at all four levels of the text structure. No significant main effects were found for age or treatment. Marginally significant interactions of treatment with verbal ability were found for both level 3; F (1, 61) = 3.11, $p = .08$ and level 4; F (1, 61) = 4.95, $p < .05$ of the semantic structure of the text. The three way interactions of age with treatment and verbal ability were not significant.

The differences on verbal ability favored those subjects with higher verbal ability for both the young and the elderly. The significant interactions between treatment and verbal ability indicates that subjects of low verbal ability who read the advance organizer significantly benefited from the treatment. Since this involved levels 3 and 4, these subjects were recalling more of the detailed information in the text. Finally, since none of the three-way interactions were significant, this indicates that while young and elderly subjects of limited verbal ability were helped by the treatment, one age group did not benefit more than the other.

Discussion

The current study provides support for the evidence that advance organizers can improve the reading comprehension of older readers. It also provides support for the suggestion of Holzman

et al. (1982) that advance organization appears to help with the comprehension of the more detailed information contained in a text. Similarly, Meyer and Rice (1981) have maintained that older readers are less sensitive to the structure of text than are younger readers, and often miss the main points contained in a passage. The advance organizer used in this study helped older readers with the detailed information in the text, but apparently was not powerful enough to assist them with the more general information contained in the text.

One of the limitations of this study was that subjects had only one opportunity to use an advance organizer with a prose passage. It may be that as suggested by Hultsch (1974), there is time needed for the elderly to "learn to learn" the use of a new concept. As such, it may take several trials or experiences with the advance organizer before the elderly recognize the power of the device. Additional research which presents the elderly with repeated exposure to advance organizers or other intervention strategies may serve to maximize the potential of the technique.

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